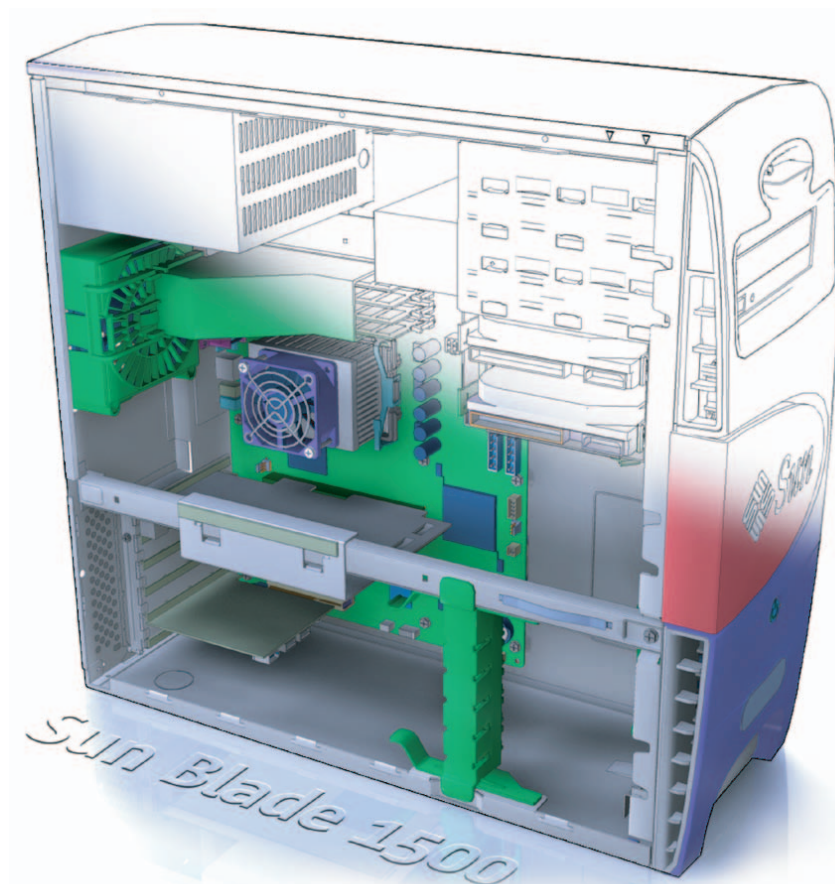


EXAMPLE DOCUMENT



Sun Blade™ 1500 Service, Diagnostics, and Troubleshooting Manual



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650-960-1300

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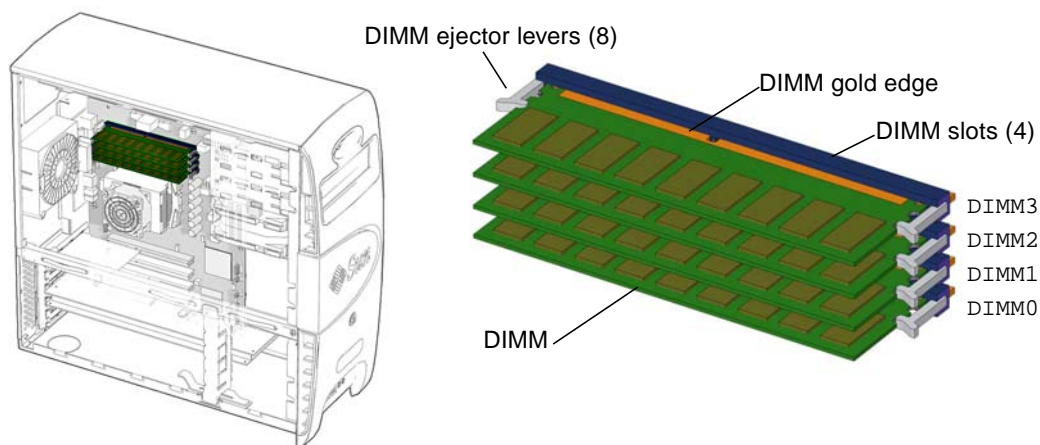


FIGURE 11-1 DIMM Location and Identification

Depending upon the configuration of your workstation, you can either add or replace memory. In either case, the new DIMMs must meet the Sun workstation requirements. TABLE 11-1 lists the acceptable DIMM pair configurations.

TABLE 11-1 DIMM Configurations

Memory	Installed DIMMs	Configuration
512 MB memory	2 x 256MB DIMMs	Standard
1GB memory	2 x 512MB DIMMs	Standard
2GB memory	2 x 1GB DIMMs	Optional

When your workstation boots up, the OpenBoot PROM checks for compatible memory modules. Refer to “OpenBoot PROM” on page 8-1 for additional information.

If you are not removing an existing DIMM, proceed to “Installing DIMMs” on page 11-8.

11.1.2 Removing DIMMs

1. Power off the system, open and position the chassis.

Refer to:

- “Powering Off the Workstation” on page 10-4



You can also view an animated version of these instructions by clicking on this film icon.

13.3.1 Identifying the Rear Fan

The front and rear fans on the Sun Blade 1500 workstation are contained in green brackets. Both fans must be operating to adequately cool the components in a closed chassis. Both fans are connected to the motherboard with a cable that carries power and signal. FIGURE 13-14 shows the location of and identifies the rear fan.

Note – Though similar in appearance, the front and rear fan brackets are not interchangeable.

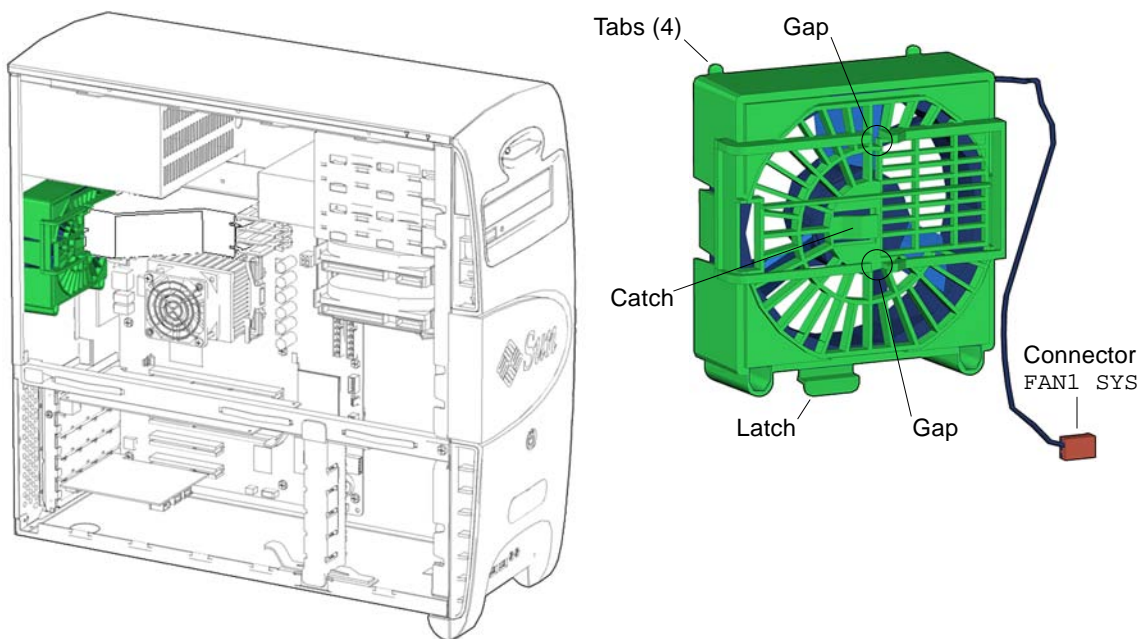


FIGURE 13-14 Rear Fan Location and Identification

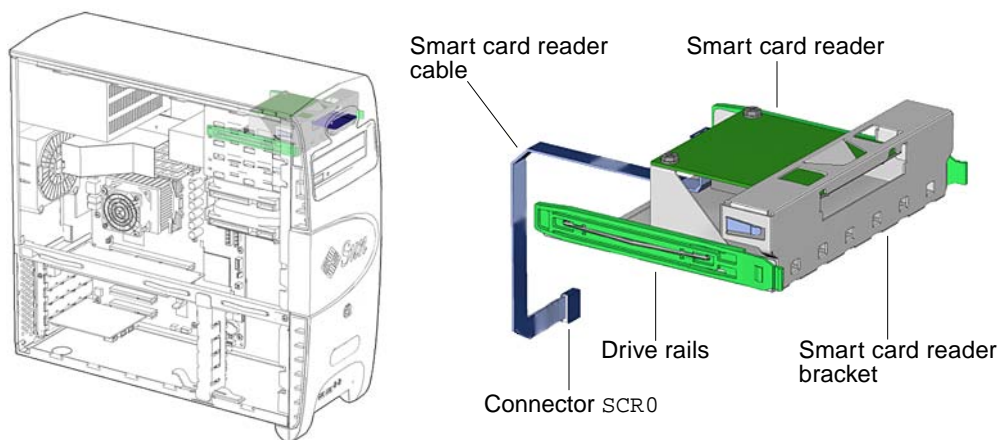


FIGURE 12-13 Smart Card Reader Location and Identification

12.3.2 Removing the Smart Card Reader

1. Power off the system, open the chassis, and remove the bezel.

Refer to:

- “Powering Off the Workstation” on page 10-4
- “Removing the Access Panel” on page 10-12
- “Removing the Bezel” on page 10-14

2. Locate the smart card reader.

The smart card is installed on a smart card reader bracket that fits into the top slot of the removable media bay. See FIGURE 12-13.

3. Disconnect the interface cable from the motherboard.

The cable is connected on the motherboard at SCR0. See FIGURE 12-14.

14.2.1 Identifying the DVD-ROM Drive Interface Cable

The DVD-ROM has separate power and interface cables. The power cable is a Y cable that connects to the motherboard at IDE PWR and the other ends to the hard drives and DVD-ROM drive. The interface cable connects the DVD-ROM drive to the motherboard at IDE SEC. The interface cable is a 40-conductor ribbon cable that is routed through the chassis. FIGURE 14-5 shows the DVD-ROM drive interface cable connections.

Note – The instructions in this section apply to any removable media drive, such as a CD-ROM, tape, or DVD-ROM drive.

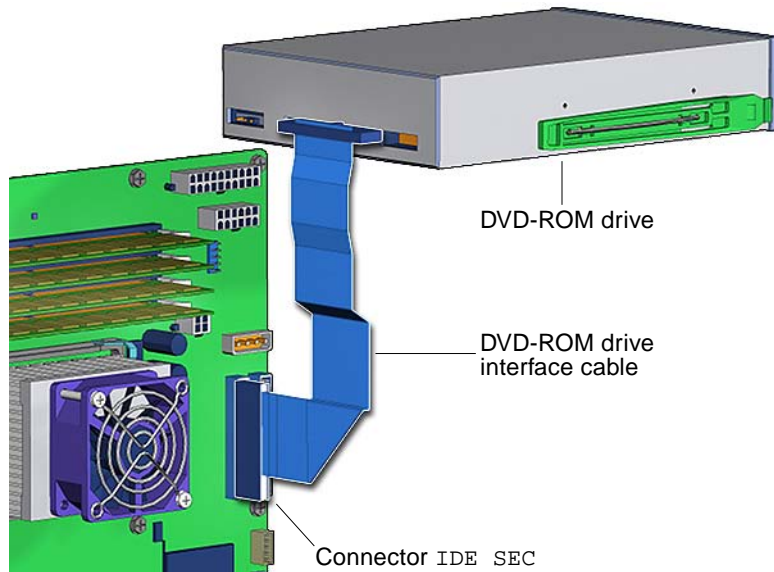


FIGURE 14-5 DVD-ROM Drive Interface Cable Connection

14.2.2 Removing the DVD-ROM Drive Interface Cable

1. Power off the system and open the chassis.

Refer to:

- “Powering Off the Workstation” on page 10-4
- “Removing the Access Panel” on page 10-12

3. Disconnect the IDE power cables from the upper hard drive HDD0.

See FIGURE 14-12.

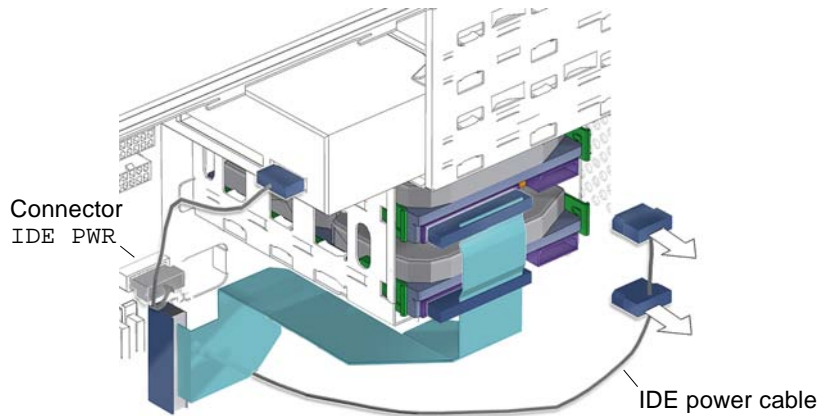


FIGURE 14-12 Disconnecting the IDE Power Cable From the Hard Drive(s)

4. If installed, disconnect the IDE power cable from the lower hard drive HDD1.

See FIGURE 14-12.

5. Disconnect the IDE power cable from the DVD-ROM drive.

See FIGURE 14-13.

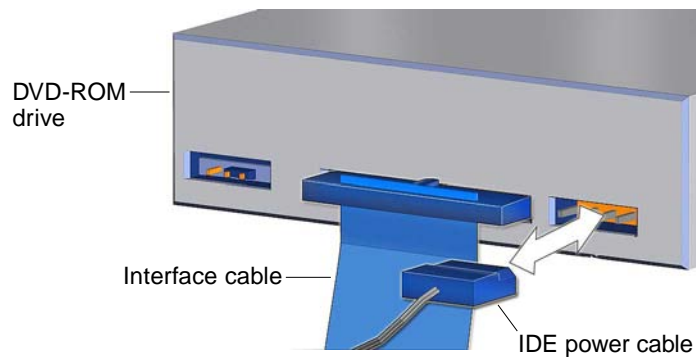


FIGURE 14-13 Disconnecting the IDE Power Cable From the DVD-ROM Drive

14.3 Replacing the Hard Drive Interface Cable

This section describes removal and installation of the hard drive interface cables. Topics include:

- “Identifying the DVD-ROM Drive Interface Cable” on page 14-7
- “Removing the DVD-ROM Drive Interface Cable” on page 14-7
- “Installing the DVD-ROM Drive Interface Cable” on page 14-8

14.3.1 Identifying the Hard Drive Interface Cable

The hard drives have separate power and interface cables. Both cables have two inline connectors to support up to two drives. The power cable is a Y cable that connects to the motherboard at IDE PWR and the other ends to the hard drives and DVD-ROM drive. The interface cable connects the hard drives to the motherboard. The interface cable is an 80-conductor ribbon cable that is routed through the chassis. FIGURE 14-8 shows the hard drive interface cable connections.

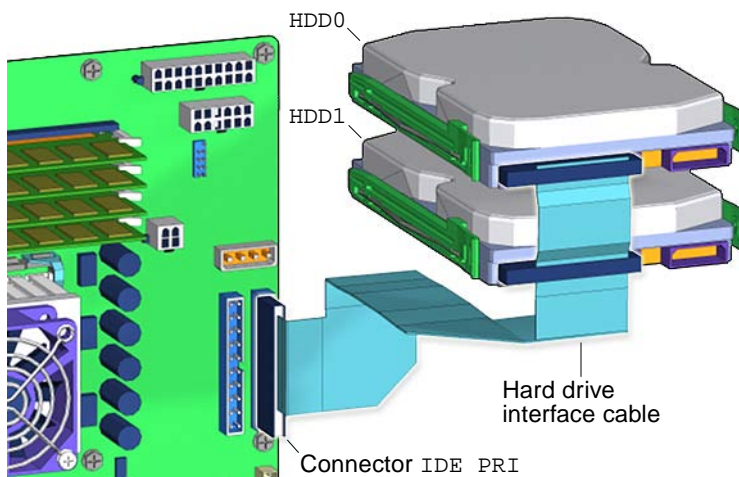


FIGURE 14-8 Hard Drive Interface Cable Connection

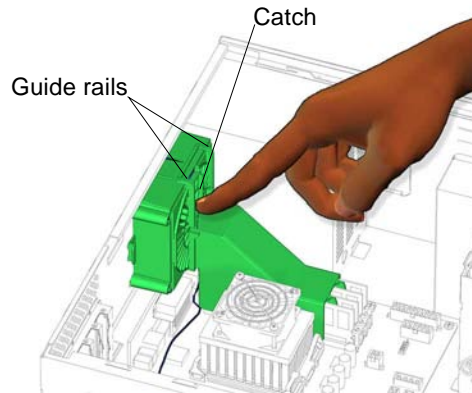


FIGURE 11-3 Pressing the Catch on the Rear Fan Bracket

- 4. Slide the duct up until it is flush with the edge of the rear fan bracket.**

See FIGURE 11-4.

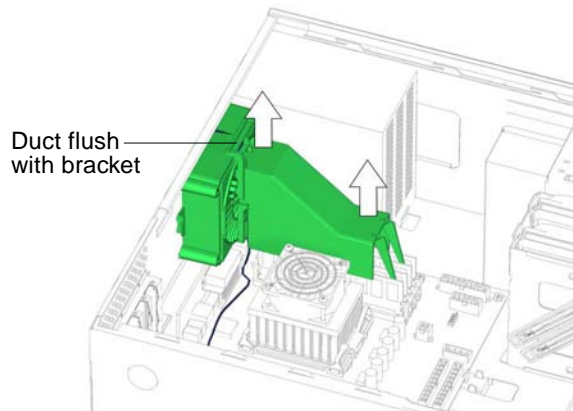


FIGURE 11-4 Sliding the Duct Up

- 5. Flip the duct up and over to the back of the chassis, so that it is 180 degrees opposite of its original position.**

See FIGURE 11-5.

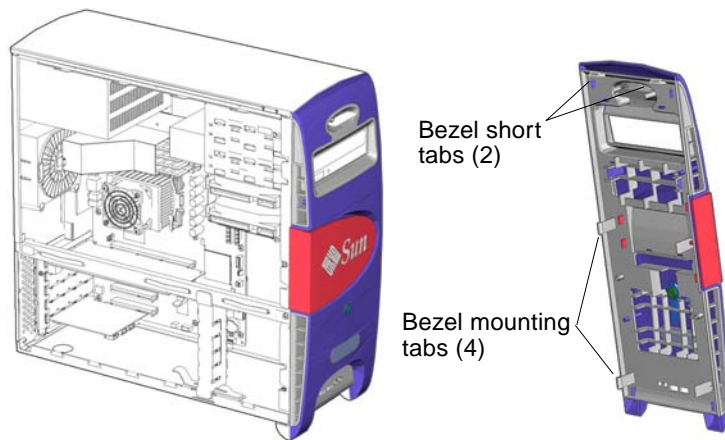


FIGURE 10-9 Bezel Location and Identification

3. Release the lower mounting tabs.

Carefully move the lower pair of mounting tabs apart, and then push them forward slightly. See FIGURE 10-10.

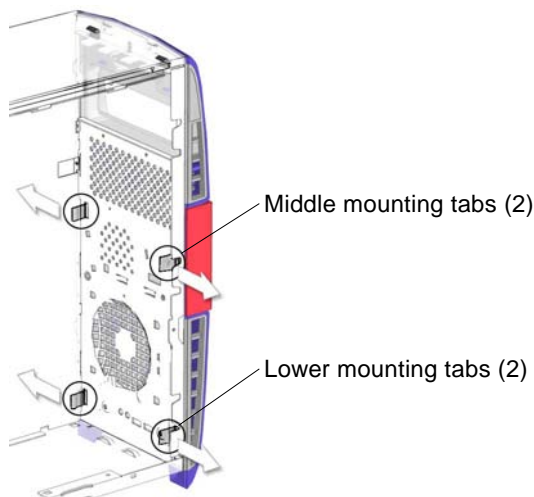


FIGURE 10-10 Releasing the Bezel Mounting Tabs

As you do this, you should see the bottom of the bezel move slightly away from the chassis.

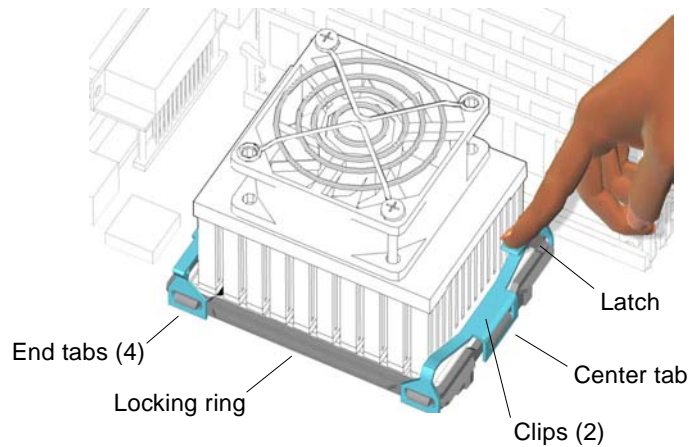


FIGURE 11-15 Pressing Down on the Clip Latch

b. Slide the clip to unhook the end opposite the latch.

This relieves clip pressure.

c. Rotate the clip away from the CPU fan and heatsink assembly and lift it off the locking ring.

Set the clip aside. If removing clips separately, repeat from Step a for the other clip. See FIGURE 11-16.

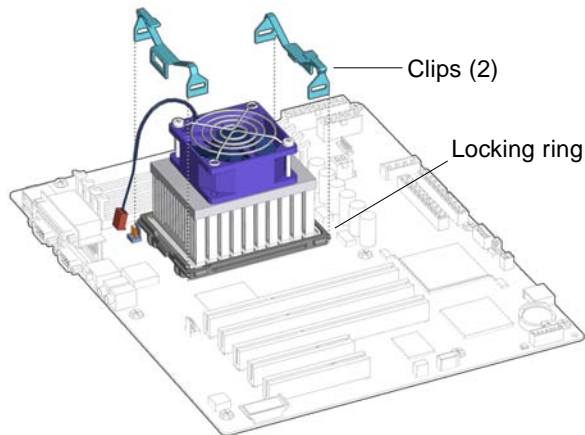


FIGURE 11-16 Releasing the CPU Fan and Heatsink Assembly Clips

11.3.1 Identifying the Battery

FIGURE 11-23 shows the location of and identifies the battery.

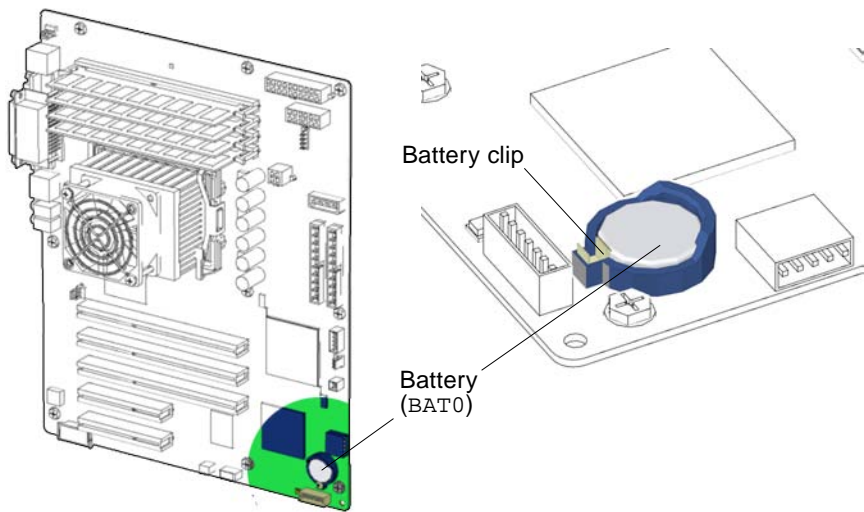


FIGURE 11-23 Battery Location and Identification

TABLE 11-1 lists the battery specifications.

TABLE 11-4 Battery Specifications

Specification	Value
Voltage	3 VDC
Type	CR 2032

11.3.2 Removing the Battery

1. Power off the system, open and position the chassis.

Refer to:

- “Powering Off the Workstation” on page 10-4
- “Removing the Access Panel” on page 10-12
- “Positioning the Chassis” on page 10-16

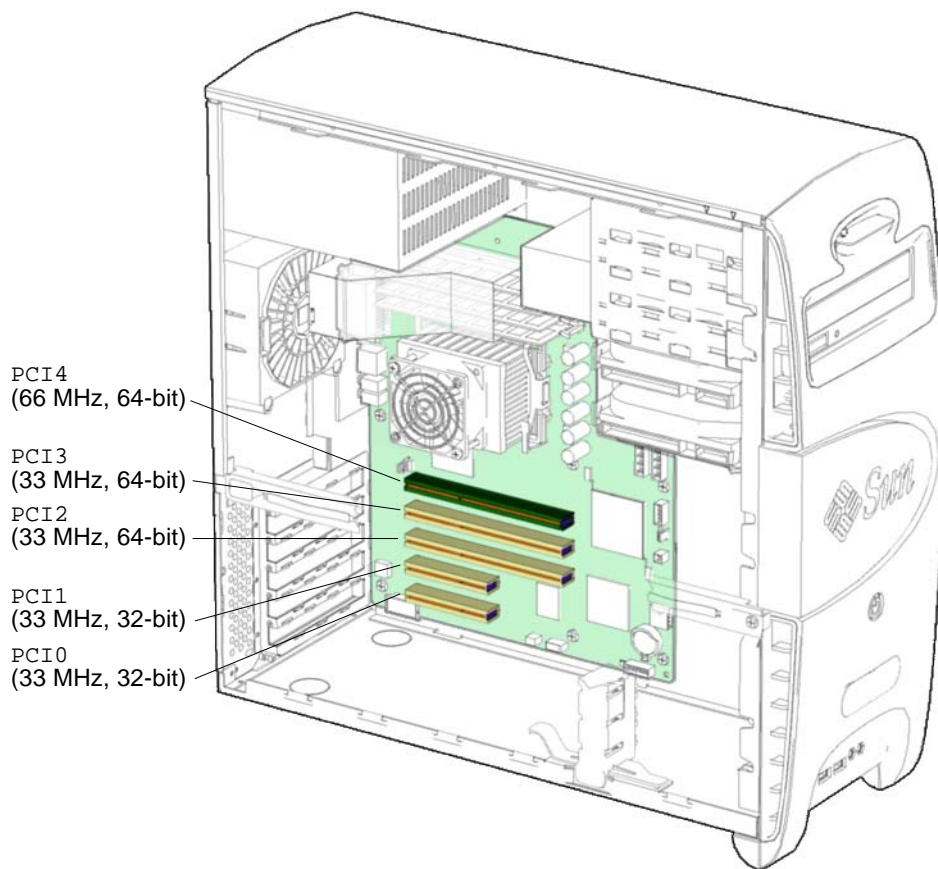


FIGURE 11-34 Identifying the PCI Card Slots

3. Swing out the PCI card support.

Squeeze the inside tabs together and swing the PCI card support out. See FIGURE 11-35.

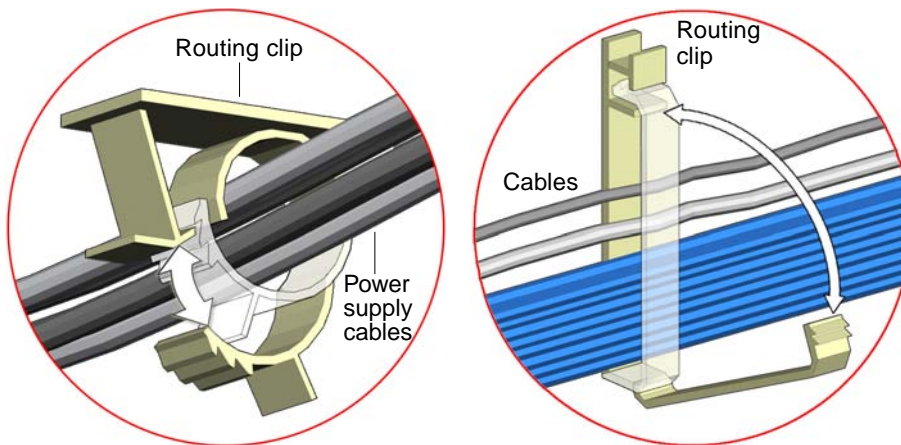


FIGURE 11-42 Removing Cables From the Routing Clips

9. Disconnect the power and signal cables.

Disconnect the following power and signal cables from the corresponding motherboard connectors and set them out of the way of the motherboard. See FIGURE 11-41.

- Power supply cables at connectors PS0, PS1, and PS2
- IDE power at connector IDE PWR
- Power button at connector J24 SW0
- Front fan at connector FAN0 SYS
- Rear fan at connector FAN1 SYS (if the rear fan was not removed)
- Front audio at connector J13 AUDIO
- Speaker at connector SPK0

10. Disconnect the interface cables.

Disconnect the following interface cables from the corresponding motherboard connectors and set them out of the way of the motherboard. See FIGURE 11-41.

- Smart card reader at connector SCRO
- Hard drive at connector IDE PRI
- DVD-ROM drive at connector IDE SEC
- Front USB at connector J19 USB

11. Remove the motherboard fastening screws.

Use the Phillips screwdriver to remove the nine (9) screws which fasten the motherboard to the chassis. See FIGURE 11-43. Set the screws aside, preferably in a container.

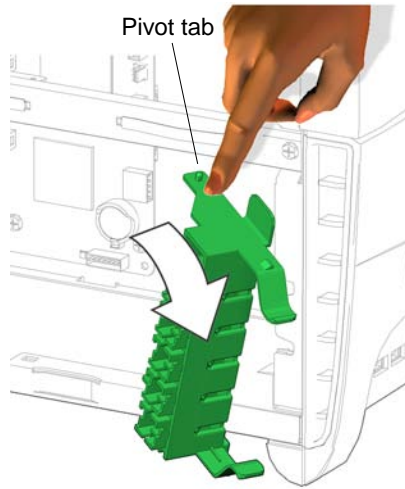


FIGURE 13-48 Removing the PCI Card Support

Note – *Do not* use the chassis cross brace as a handle.

Proceed to “Installing the PCI Card Support” on page 13-45.

Note – Do not operate the workstation without the PCI card support installed.

13.7.3 Installing the PCI Card Support

1. Open the chassis.

Refer to “Removing the Access Panel” on page 10-12

2. Identify where the PCI card support is to be installed.

See FIGURE 13-46.

3. Install the PCI card support.

Align the lower pivot tab with the hole in the chassis bottom. Slightly depress the upper pivot tab and slide it under the cross brace so that it clicks into place. See FIGURE 13-49.

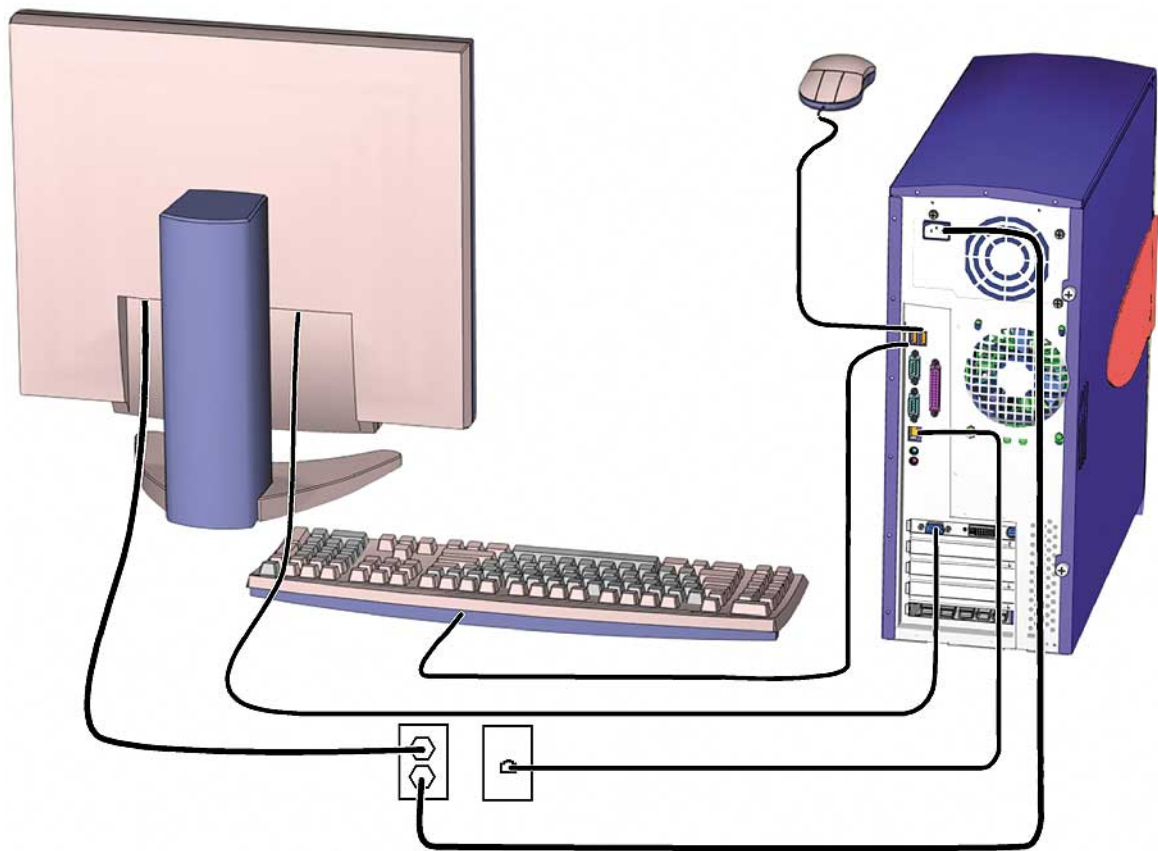


FIGURE 15-8 Reconnecting the Keyboard, Mouse, Monitor, and Network Connections

- 2. Reconnect any other external peripherals.**
- 3. Power on those peripherals.**

Note – The monitor must be powered on before the system so that the monitor can communicate with the graphics accelerator when the system powers on.

- 4. Reconnect the power cord between the power source and the system power supply connector.**

See FIGURE 15-9.